

CLAIMS

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1. A brushless motor comprising:
- 5 a rotor with a permanent magnet having P (P is an integer not less than two) pieces of polarity; and
- a stator facing said rotor and having a plurality of coils,
- wherein any one of the coils has isosceles sides interlinking with magnetic field generated by the polarities, and extension lines of the isosceles sides, extending through centers of winding-bundles of the coil, toward a shaft
- 10 center cross each other at the shaft center and form an angle of $360/P$ degree.

2. The brushless motor as defined in Claim 1, wherein an outer rim of the coil measures not more than $\phi 40$ mm.

- 15 3. The brushless motor as defined in Claim 1, wherein the coil winding-bundles forming the isosceles sides are disposed within an area covered by an angle of $360/(4 \times P)$ degree both inside and outside with respect to a center of the angle of $360/P$ degree.

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- 20 4. The brushless motor as defined in Claim 3, wherein the coils adjacent to each other is spaced out at intervals of $(360/P) \times (5/3)$ degree.

5. The brushless motor as defined in Claim 4 further comprising three position detectors for detecting a position of said rotor, wherein said detectors
- 25 are placed at intervals of $(360/P) \times (2/3)$ degree and in an area where the coils are not placed.